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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,965	10/14/2005	Jinhong Katherine Guo	MAT1-218US	3584
23122	7590	11/08/2006	EXAMINER	
RATNERPRESTIA			CARTER, AARON W	
P O BOX 980			ART UNIT	
VALLEY FORGE, PA 19482-0980			PAPER NUMBER	

2624

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/524,965

Applicant(s)

GUO ET AL.

Examiner

Aaron W. Carter

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to papers filed on August 28, 2006.

#### ***Response to Amendment***

2. In response to applicant's amendment received on August 28, 2006, all requested changes to the specification and claims have been entered. Claim 21 has been added.

#### ***Response to Arguments***

3. Applicant's arguments with respect to claim 1-20 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 7, 10, 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,893,127 to Tyan et al. ("Tyan"), already of record, in view of USPN 5,699,453 to Ozaki.

As to claim 1, Tyan discloses a method for generating structured document files from a document image, the method comprising the steps of:

Segmenting the document image into one or more zones, at least one of the one or more zones containing a respective text image (column 4, lines 53-66, wherein blocks correspond to zones);

Converting the respective text images within the at least one of the one or more zones to digital text (column 6, lines 39-43);

Automatically identifying layout information for each of the one or more zones (column 6, lines 63-66);

Labeling each of the one or more zones in accordance with a schema (column 10, lines 32-39); and

Automatically associating mark-up language tags with the labeled zones to generate the structured document files responsive to the identified layout information and a model file (column 14, lines 32-40).

Tyan does not disclose expressly selecting a model file of a plurality of model files, each of the model files representing a respective type of document image, and including a respective schema for comparison with each of the one or more zones of the document image;

However, Ozaki discloses a method for generating structured document files from a document image, the method comprising the steps of:

segmenting the document image into one or more zones, at least one of the one or more zones containing a respective text image (column 4, lines 63-67, wherein the major white region

extraction means corresponds to segmenting the document and the major white regions correspond to zones);

automatically identifying layout information for each of the one or more zones (column 5, lines 20-36);

selecting a model file of a plurality of model files (column 6, lines 45-52 and column 5, lines 49-54), each of the model files representing a respective type of document image (column 6, lines 45-52), and including a respective schema for comparison with each of the one or more zones of the document image (column 6, lines 53-66 and column 5, line 54 – column 6, line 3);

labeling each of the one or more zones in accordance with the schema (column 6, lines 3-8, wherein logical tags correspond to labels).

Tyan & Ozaki are combinable because they are from the same art of image processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of selecting and using a model file, as taught by Ozaki, with the method of generating structured document files, as disclosed by Tyan.

The suggestion/motivation for doing so would have been to provide an accurate and efficient method for attaching logical tags to document elements (Ozaki, column 2, lines 2-6).

Therefore, it would have been obvious to combine Tyan with Ozaki to obtain the invention as specified in claim 1.

As to claim 2, the combination of Tyan and Ozaki discloses the method of claim 1, wherein the selected model file is associated with the schema and wherein the labeling step comprises at least the steps of:

Automatically labeling each of the one or more zones responsive to the selected model file (Tyan, column 10, lines 32-39 and Fig. 11a).

As to claim 7, the combination of Tyan and Ozaki discloses the method of claim 1, wherein the respective text images are displayed on a graphical user interface (GUI) and wherein the converting step comprises at least the step of:

Overlaying the respective text images displayed on the GUI with at least one of the one or more zones with the corresponding digital text (Tyan, column 6, lines 39-43).

As to claim 10, please refer to the rejection of claim 1 above.

As to claim 13, please refer to the rejection of claim 1 above.

As to claim 18, please refer to the rejection of claim 1 above.

6. Claims 3-6, 11, 12, 14, 15 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tyan and Ozaki in view of USPN 5,555,362 to Yamashita et al. ("Yamashita"), already of record.

As to claim 3, the combination of Tyan and Ozaki discloses the method claim 1.

The combination of Tyan and Ozaki does not disclose expressly the steps of:

Receiving editing commands corresponding to the one or more zones; and

Updating the one or more zones responsive to the editing commands.

Yamashita discloses a method of generating a structured document comprising the steps of:

Receiving editing commands corresponding to the one or more zones (column 1, line 62 – column 2, line 4 and column 6, lines 7-24); and

Updating the one or more zones responsive to the editing commands (column 1, line 62 – column 2, line 4 and column 6, lines 7-24).

Tyan, Ozaki & Yamashita are combinable because they are from the same art of user interface simplification.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method generating a structured document, as disclosed by Tyan and Ozaki, with the process of editing and updating the zones of the document in accordance with editing commands.

The suggestion/motivation for doing so would have been make it easy for general users to generate a new tree structure (Yamashita, column 1, lines 37-42).

Therefore, it would have been obvious to combine Tyan and Ozaki with Yamashita to obtain the invention as specified in claim 3.

As to claim 4, the combination of Tyan, Ozaki and Yamashita disclose the method of claim 3, wherein the step of receiving editing commands includes the step of receiving text editing commands and the step of updating the one or more zones includes the step of editing the digital text responsive to the text editing commands (Yamashita, column 6, lines 25-42, wherein the rectangular areas correspond to the text which are updated according to the user commands).

As to claim 5, the combination of Tyan, Ozaki and Yamashita discloses the method of claim 3, wherein the step of receiving editing commands includes the step of receiving segmenting commands and the step of updating the one or more zones includes the step of updating characteristics of the one or more zones responsive to the segmenting commands (Yamashita, column 6, lines 7-42).

As to claim 6, the combination of Tyan, Ozaki and Yamashita discloses the method of claim 1, further comprising the step of:

Receiving editing commands corresponding to the schema (Yamashita, column 8, lines 15-61);

Updating the schema responsive to the editing commands (Yamashita, column 8, lines 15-61).

As to claim 11, please refer to the rejection of claim 3 above.

As to claim 12, please refer to the rejection of claim 6 above.

As to claim 14, the combination of Tyan, Ozaki and Yamashita disclose the generator of claim 13, further comprising:

An editor coupled to the document processor that enables editing of the digital text and the one or more zones (Yamashita, column 6, lines 25-42, wherein the rectangular areas correspond to the text zones which are updated according to the user commands).



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As to claim 15, the combination of Tyan, Ozaki and Yamashita discloses the generator of claim 13, further comprising:

An editor coupled to the labeler that enables editing of the labels for each of the one or more zones (Yamashita, column 8, lines 15-61).

As to claim 19, please refer to the rejection of claim 3 above.

As to claim 20, please refer to the rejection of claim 6 above.

As to claim 21, the combination of Tyan, Ozaki and Yamashita discloses the method of claim 6, further comprising the step of:

Automatically updating the selected model file based on the updated schema (column 8, lines 33-46)

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tyan and Ozaki in view of USPN 6,263,332 to Nasr et al. ("Nasr"), already of record.

As to claim 8, the combination of Tyan and Ozaki discloses the method of claim 1.

The combination of Tyan and Ozaki does not disclose expressly wherein the structured document files include an XML file and an XSL file for each document image and wherein the generating steps comprise at least the steps of:

Formatting the XSL file such that information corresponding to each of the labeled zones in the XML file is displayed in multiple layers on a web browser.

Nasr discloses a method wherein structured document files include an XML file and an XSL file for each document image (column 11, lines 10-31) and wherein the generating steps comprise at least the steps of:

Formatting the XSL file such that information corresponding to each of the labeled zones in the XML file is displayed in multiple layers on a web browser (column 11, lines 10-31).

Tyan, Ozaki & Nasr are combinable because they are from the same art of displaying a document on a web browser.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method generating a structured document as disclosed by Tyan and Ozaki with the process of formatting the XSL file such that information corresponding to each of the zones in the XML file is displayed in multiple layers on a web browser as taught by Nasr.

The suggestion/motivation for doing so would have been to provide information that is easy to query (Nasr, column 1, lines 44-48).

Therefore, it would have been obvious to combine Tyan and Ozaki with Nasr to obtain the invention as specified in claim 8.

8. Claims 9, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tyan and Ozaki in view of USPN 5,442,746 to Barrett.

As to claim 9, the combination of Tyan and Ozaki discloses the method of claim 1, wherein the steps of segmenting, converting, labeling and automatically associating mark-up language tags are performed sequentially (Tyan, Fig. 5).

The combination of Tyan and Ozaki does not disclose expressly they are performed sequentially responsive to a selection of a workflow icon of a graphical user interface and wherein the method further comprises the step of:

Updating the workflow icon to represent a next step of the segmenting, converting, labeling, and automatically associating mark-up tags to be performed, wherein the workflow icon presents a unique image corresponding to each step.

Barrett discloses a method of performing tasks sequentially responsive to a selection of a workflow icon of a graphical user interface (column 2, lines 28-35 and Fig. 1, elements 20, 21, 22, wherein the icons in Fig. 1 correspond to the workflow icons) and wherein the further comprises the step of:

Updating the workflow icon to represent a next step (column 5, line 63 - column 6, line 10), wherein the workflow icon presents a unique image corresponding to each step (Fig. 1, elements 20, 21 and 22).

Tyan, Ozaki & Barrett are combinable because they are from same art of user interface simplification.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method generating a structured document as disclosed by Tyan and Ozaki with the process of simplifying a procedure for a user, through the use of workflow icons.

The suggestion/motivation for doing so would have been provide the ability of no longer requiring a user to be an expert in the discipline to perform a task, as well as, allowing a new user to be immediately productive (Barrett, column 41-54).

Therefore, it would have been obvious to combine Tyan and Ozaki with Barrett to obtain the invention as specified in claim 9.

As to claim 16, the combination of Tyan, Ozaki and Barrett discloses, a graphical user interface (GUI) for generating structured document files from a document image, the GUI comprising:

A document panel for displaying a document image (Tyan, column 4, lines 12-31);

A schema panel for displaying a schema corresponding to the document (Tyan, column 4, lines 12-31) and a selected model file which is selected from a plurality of model files (Ozaki, column 6, lines 45-52 and column 5, lines 49-54), each of the model files representing a respective type of document image (Ozaki, column 6, lines 45-52), and wherein the selected model file includes the schema for comparison with each of the one or more zones of the document image (Ozaki, column 6, lines 53-66 and column 5, line 54 – column 6, line 3);

A workflow icon for directing the generation of at least one structured mark-up language document from the document image, the workflow icon reflecting a next step in a process to generate the at least one structured mark-up language document (Barrett, column 2, lines 28-35, Fig. 1, elements 20, 21, 22 and column 5, line 63 - column 6, line 10, wherein the icons in Fig. 1 correspond to the workflow icons, also please refer to the rejection of claim 9 above).

As to claim 17, please refer to the rejection of claim 9 above.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

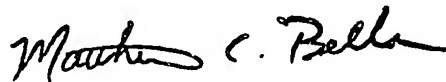
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W. Carter whose telephone number is (571) 272-7445. The examiner can normally be reached on 8am - 4:30 am (Mon. - Fri.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AWC  
*Awe*



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